

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	3	("3907913").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/10/04 11:53
L2	2	("6218586").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/10/04 11:53
L4	537	aluminum adj trifluoride	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/10/04 11:54
L5	1701	AlF3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/10/04 11:54
L6	2205	I4 or I5	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/10/04 11:54
L7	772	SbF5 or SbClF4 or SbCl2F3 or SbCl3F2 or SbCl4F or SbCl5	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/10/04 12:54
L8	11	I5 and I7	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/10/04 12:05
L9	8	I5 same I7	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/10/04 11:57
L10	472752	porous	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/10/04 11:58
L11	0	I8 and I10	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/10/04 12:04
L12	0	I1 and I8	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/10/04 12:04

## EAST Search History

L13	0	I2 and I8	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/10/04 12:04
L14	2	("3907913").URPN.	USPAT	OR	ON	2006/10/04 12:20
L15	4	("3903196").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/10/04 12:20
L16	3	("3903196").URPN.	USPAT	OR	ON	2006/10/04 12:53
L17	4667	fluorination	USPAT	OR	ON	2006/10/04 12:54
L18	1250	antimony adj pentafluoride	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/10/04 12:54
L19	18376	I6 amd I18	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/10/04 12:54
L20	52	I6 and I18	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/10/04 12:55
L21	35	I6 same I18	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/10/04 12:55
L22	7	I17 and I20	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/10/04 13:17
L23	2	("4973776").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/10/04 13:24
L24	3	"9955739"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/10/04 13:27
L25	0	alumuinum adj fluoride	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/10/04 13:28
L26	5569	aluminum adj fluoride	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/10/04 13:29

## EAST Search History

L27	1983	I18 or I7	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/10/04 13:29
L28	21	I26 same I27	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/10/04 14:23
L29	445	560/227.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/10/04 14:21
L30	136	585/935.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/10/04 14:21
L31	580	I29 or I30	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/10/04 14:22
L32	2	I31 and I4	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/10/04 14:22
L33	50	I26 and I27	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/10/04 14:23
L34	0	I31 and I33	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/10/04 14:23

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1623PAZ

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS	1	Web Page URLs for STN Seminar Schedule - N. America
NEWS	2	"Ask CAS" for self-help around the clock
NEWS	3	FEB 27 New STN AnaVist pricing effective March 1, 2006
NEWS	4	MAY 10 CA/CAPLUS enhanced with 1900-1906 U.S. patent records
NEWS	5	MAY 11 KOREAPAT updates resume
NEWS	6	MAY 19 Derwent World Patents Index to be reloaded and enhanced
NEWS	7	MAY 30 IPC 8 Rolled-up Core codes added to CA/CAPLUS and USPATFULL/USPAT2
NEWS	8	MAY 30 The F-Term thesaurus is now available in CA/CAPLUS
NEWS	9	JUN 02 The first reclassification of IPC codes now complete in INPADOC
NEWS	10	JUN 26 TULSA/TULSA2 reloaded and enhanced with new search and and display fields
NEWS	11	JUN 28 Price changes in full-text patent databases EPFULL and PCTFULL
NEWS	12	JUL 11 CHEMSAFE reloaded and enhanced
NEWS	13	JUL 14 FSTA enhanced with Japanese patents
NEWS	14	JUL 19 Coverage of Research Disclosure reinstated in DWPI
NEWS	15	AUG 09 INSPEC enhanced with 1898-1968 archive
NEWS	16	AUG 28 ADISCTI Reloaded and Enhanced
NEWS	17	AUG 30 CA(SM)/CAPLUS(SM) Austrian patent law changes
NEWS	18	SEP 11 CA/CAPLUS enhanced with more pre-1907 records
NEWS	19	SEP 21 CA/CAPLUS fields enhanced with simultaneous left and right truncation
NEWS	20	SEP 25 CA(SM)/CAPLUS(SM) display of CA Lexicon enhanced
NEWS	21	SEP 25 CAS REGISTRY(SM) no longer includes Concord 3D coordinates
NEWS	22	SEP 25 CAS REGISTRY(SM) updated with amino acid codes for pyrrolysine
NEWS	23	SEP 28 CEABA-VTB classification code fields reloaded with new classification scheme
NEWS EXPRESS	JUNE 30	CURRENT WINDOWS VERSION IS V8.01b, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 26 JUNE 2006.
NEWS HOURS		STN Operating Hours Plus Help Desk Availability
NEWS LOGIN		Welcome Banner and News Items
NEWS IPC8		For general information regarding STN implementation of IPC 8
NEWS X25		X.25 communication option no longer available

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 13:03:26 ON 04 OCT 2006

=> logoffnhold

THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE

Some commands only work in certain files. For example, the EXPAND command can only be used to look at the index in a file which has an index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of commands which can be used in this file.

=> logoff hold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

SESSION WILL BE HELD FOR 60 MINUTES

STN INTERNATIONAL SESSION SUSPENDED AT 13:03:49 ON 04 OCT 2006

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1623PAZ

PASSWORD:

\* \* \* \* \* RECONNECTED TO STN INTERNATIONAL \* \* \* \* \*  
SESSION RESUMED IN FILE 'HOME' AT 13:14:36 ON 04 OCT 2006  
FILE 'HOME' ENTERED AT 13:14:36 ON 04 OCT 2006

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

=> aluminum fluoride or aluminum trifluoride

THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE

Some commands only work in certain files. For example, the EXPAND command can only be used to look at the index in a file which has an index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of commands which can be used in this file.

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.42	0.42

FILE 'CAPLUS' ENTERED AT 13:15:09 ON 04 OCT 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 4 Oct 2006 VOL 145 ISS 15

FILE LAST UPDATED: 3 Oct 2006 (20061003/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.  
They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> aluminum fluoride or aluminum trifluoride

944685 ALUMINUM

301 ALUMINUMS

944748 ALUMINUM

(ALUMINUM OR ALUMINUMS)

253383 FLUORIDE

45129 FLUORIDES

269264 FLUORIDE

(FLUORIDE OR FLUORIDES)

7675 ALUMINUM FLUORIDE

(ALUMINUM(W) FLUORIDE)

944685 ALUMINUM

301 ALUMINUMS

944748 ALUMINUM

(ALUMINUM OR ALUMINUMS)

21689 TRIFLUORIDE

561 TRIFLUORIDES

21972 TRIFLUORIDE

(TRIFLUORIDE OR TRIFLUORIDES)

1511 ALUMINUM TRIFLUORIDE

(ALUMINUM(W) TRIFLUORIDE)

L1 8818 ALUMINUM FLUORIDE OR ALUMINUM TRIFLUORIDE

=> sbf5 or antimony pentafluoride

2547 SBF5

112764 ANTIMONY

2 ANTIMONIES

112765 ANTIMONY

(ANTIMONY OR ANTIMONIES)

4265 PENTAFLUORIDE

275 PENTAFLUORIDES

4387 PENTAFLUORIDE

(PENTAFLUORIDE OR PENTAFLUORIDES)

1428 ANTIMONY PENTAFLUORIDE

(ANTIMONY(W) PENTAFLUORIDE)

L2 3020 SBF5 OR ANTIMONY PENTAFLUORIDE

=> l1(1)l2

L3 5 L1(L)L2

=> d l3 1-5 ti

L3 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN

TI Investigation into antimony pentafluoride-based catalyst in preparing organo-fluorine compounds

L3 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN

TI SbF5/PAF-a novel fluorinating reagent in preparing fluorine compounds

L3 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN

TI A novel antimony-based fluorinating reagent and catalyst

L3 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN

TI Catalyst system with an aluminum fluoride activator

L3 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN

TI Conversion of methane to gasoline-range hydrocarbons via isobutene

=> d 13 1-5 ti fbib abs

L3 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN  
TI Investigation into antimony pentafluoride-based catalyst in preparing  
organo-fluorine compounds  
AN 2005:304870 CAPLUS  
DN 143:442384  
TI Investigation into antimony pentafluoride-based catalyst in preparing  
organo-fluorine compounds  
AU Yang, Hui-e; Quan, Heng-dao; Tamura, Masanori; Sekiya, Akira  
CS National Institute of Advanced Industrial Science and Technology (AIST),  
Tsukuba, Ibaraki, 305-8565, Japan  
SO Journal of Molecular Catalysis A: Chemical (2005), 233(1-2), 99-104  
CODEN: JMCCF2; ISSN: 1381-1169  
PB Elsevier B.V.  
DT Journal  
LA English  
AB Antimony pentafluoride (SbF<sub>5</sub>)/porous metal fluorides (PMF) were prepared by  
impregnation of PMF with SbCl<sub>5</sub> followed by fluorination with anhydrous  
hydrogen fluoride (AHF). The PMFs include Al fluoride, Mg fluoride, Ca  
fluoride, and Cr fluoride, prepared from the corresponding oxides. The  
SbF<sub>5</sub>/PMF demonstrates excellent activity as catalyst in vapor-phase  
fluorination of hydrocarbons and overcomes such drawbacks as  
hygroscopicity, corrosion, and toxicity that appear when SbF<sub>5</sub> is used  
alone. The SbF<sub>5</sub>/PMF catalyst system was characterized by x-ray  
diffraction, XPS, BET surface area measurements, and SEM. The catalytic  
activity was evaluated in vapor-phased fixed-bed fluorination of  
chlorinated hydrocarbons.  
RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN  
TI SbF<sub>5</sub>/PAF-a novel fluorinating reagent in preparing fluorine compounds  
AN 2004:521180 CAPLUS  
DN 142:74231  
TI SbF<sub>5</sub>/PAF-a novel fluorinating reagent in preparing fluorine compounds  
AU Quan, Heng-Dao; Yang, Hui-E.; Tamura, Masanori; Sekiya, Akira  
CS AIST Tsukuba Central 5, National Institute of Advanced Industrial Science  
and Technology (AIST), 1-1-1, Higashi, Ibaraki, Tsukuba, 305-8565, Japan  
SO Journal of Fluorine Chemistry (2004), 125(7), 1169-1172  
CODEN: JFLCAR; ISSN: 0022-1139  
PB Elsevier Science B.V.  
DT Journal  
LA English  
OS CASREACT 142:74231  
AB A novel fluorination reagent and catalyst, SbF<sub>5</sub>/PAF (porous Al fluoride),  
was prepared by impregnating SbCl<sub>5</sub> into PAF and then treating with anhydrous  
HF. The prepared reagent had an excellent catalytic activity in  
halogen-exchange, and also improved the properties of SbF<sub>5</sub>, such as  
hygroscopicity, corrosion, and toxicity. SbF<sub>5</sub>/PAF was successfully used  
in organic synthesis as a fluorinating reagent for MeCF<sub>2</sub>Cl or MeCFCl<sub>2</sub>, and a  
fixed bed catalyst for F/Cl exchange of CH<sub>2</sub>Cl<sub>2</sub>.  
RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN  
TI A novel antimony-based fluorinating reagent and catalyst  
AN 2004:224637 CAPLUS  
TI A novel antimony-based fluorinating reagent and catalyst  
AU Sekiya, Akira; Quan, Heng-dao; Yang, Hui E.; Tamura, Masanori  
CS AIST Tsukuba Central 5-2, National Institute of Advanced Industrial  
Science and Technology, Tsukuba, Ibaraki, 305-8565, Japan  
SO Abstracts of Papers, 227th ACS National Meeting, Anaheim, CA, United  
States, March 28-April 1, 2004 (2004), FLUO-018 Publisher: American  
Chemical Society, Washington, D. C.

CODEN: 69FGKM

DT Conference; Meeting Abstract

LA English

AB A novel antimony-based fluorination reagent and catalyst was prepared by impregnating SbCl<sub>5</sub> into porous aluminum fluoride (PAF) and then treating with anhydrous hydrogen fluoride. The prepared reagent had an excellent catalytic activity in halogen-exchange, and also improved the properties of SbF<sub>5</sub>, such as hygroscopicity, corrosion, and toxicity. SbF<sub>5</sub> /PAF was successfully used in organic synthesis as a fluorinating reagent, and a fixed bed catalyst for F/Cl exchange.

L3 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN

TI Catalyst system with an aluminum fluoride activator

AN 1999:708800 CAPLUS

DN 131:323054

TI Catalyst system with an aluminum fluoride activator

IN Suling, Carsten; Kristen, Marc Oliver; Schweier, Gunther; Gonioukh, Andrei; Hauck, Gerhard

PA BASF A.-G., Germany

SO PCT Int. Appl., 37 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9955739	A1	19991104	WO 1999-EP2449	19990412
	W: AL, AU, BG, BR, BY, CA, CN, CZ, GE, HU, ID, IL, IN, JP, KR, KZ, LT, LV, MK, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TR, UA, US, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 19818219	A1	19991028	DE 1998-19818219	A 19980424
	AU 9938151	A1	19991116	DE 1998-19818219	19980424
				AU 1999-38151	19990412
				DE 1998-19818219	A 19980424
				WO 1999-EP2449	W 19990412
	EP 1088002	A1	20010404	EP 1999-920642	19990412
	EP 1088002	B1	20040218		
	R: BE, DE, FR, GB, IT, NL				
				DE 1998-19818219	A 19980424
				WO 1999-EP2449	W 19990412
	JP 2002513049	T2	20020508	JP 2000-545897	19990412
				DE 1998-19818219	A 19980424
				WO 1999-EP2449	W 19990412
	US 6500907	B1	20021231	US 2000-673148	20001011
				DE 1998-19818219	A 19980424
				WO 1999-EP2449	W 19990412

OS MARPAT 131:323054

AB A catalyst system which is suitable for polymerizing unsatd. monomers can be obtained by reacting (A) a transition metal compound (preferably a metallocene) with (B) AlF<sub>3</sub> (which may be formed in situ from an Al alkyl and BF<sub>3</sub>), (C) a cation-forming compound, and optionally (D) other components. Thus, 11.4 g Et<sub>3</sub>Al in toluene was added dropwise to a toluene solution of 14.9 g BF<sub>3</sub>.OEt<sub>2</sub> to precipitate amorphous AlF<sub>3</sub>. To a solution of 1

g

Cp<sub>2</sub>ZrCl<sub>2</sub> (Cp = cyclopentadienyl) in 20 mL toluene were added consecutively 750 mg SbF<sub>5</sub> and 15 g of the amorphous AlF<sub>3</sub> and the toluene was distilled under vacuum to give a catalyst, which was used to polymerize ethylene in isobutane containing BuLi at 70°/38 bars.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN

TI Conversion of methane to gasoline-range hydrocarbons via isobutene



AN 1991:125687 CAPLUS  
 DN 114:125687  
 TI Conversion of methane to gasoline-range hydrocarbons via isobutene  
 IN Allenger, Vincenza M.; Pandey, Raj N.  
 PA Canada, Minister of Energy, Mines and Resources, Can.  
 SO U.S., 3 pp.  
 CODEN: USXXAM

DT Patent  
 LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4973776	A	19901127	US 1989-448972	19891212
				CA 1988-586898	A 19881222
	CA 1304419	A1	19920630	CA 1988-586898	19881222
AB	A process for the gas-phase condensation of natural gas or CH <sub>4</sub> into gasoline-range hydrocarbons comprises (a) reacting a mixture of CH <sub>4</sub> and acetylene in the presence of a solid superacid catalyst, e.g., TaF <sub>5</sub> -AlF <sub>3</sub> , to form isobutene, and (b) converting the isobutene product into gasoline-range hydrocarbons in the presence of a crystalline zeolite catalyst, e.g., HZSM 5.				

=> logoff hold

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
39.12	39.54

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-3.75	-3.75

CA SUBSCRIBER PRICE

SESSION WILL BE HELD FOR 60 MINUTES

STN INTERNATIONAL SESSION SUSPENDED AT 13:28:10 ON 04 OCT 2006